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UNUSUAL LANDINGS OF AGAR YIELDING SEAWEED *GRACILARIA EDULIS* IN KOTTAIPATTANAM-CHINNAMANAI AREA*

The red seaweeds *Gelidiella acerosa*, *Gracilaria edulis* and *G. crassa* are used as raw materials for the production of agar by the seaweed industries in India. Since 1966, these seaweeds are exploited from the natural beds around Mandapam area in Tamil Nadu coast. During the years from 1978 to 1989 the annual landings of *G. acerosa* varied from 102 to 541 tonnes (dry wt) and *G. edulis* from 117 to 400 tonnes. Since 1980, many agar manufacturing industries have come up in India. The demand of agar yielding seaweeds for the agar industries is more, but the quantity of *G. acerosa* and *G. edulis* exploited is less. Some quantity of *G. crassa* (2 to 85 tonnes dry wt/annum) was exploited from 1983 onwards to meet the shortage of *G. edulis*.

So far *G. edulis* is harvested from five localities namely Rameswaram, Pamban, Vedalat, Seeniappa Darga and Kilakkarai. It grows on pebbles, small stones and seagrasses. It is collected throughout the year mainly around the Gulf of Mannar Islands using country crafts while shore collection in Palk Bay and Gulf of Mannar areas is very meagre. The cost of *G. edulis* ranges from Rs. 2,500 to 3,000 per tonne dry weight.

During the period from April to June '90, for the first time an unusual harvest of *G. edulis* was made from 35 km long coastline area in Tamil Nadu between Kottai pattanam and Chinnamanai (Fig. 1). The plants were found in free floating condition at the bottom in 6 to 7 m deep area

* Reported by S. Kalimuthu and N. Kalliperumal, Regional Centre of CMFRI, Mandapam Camp.

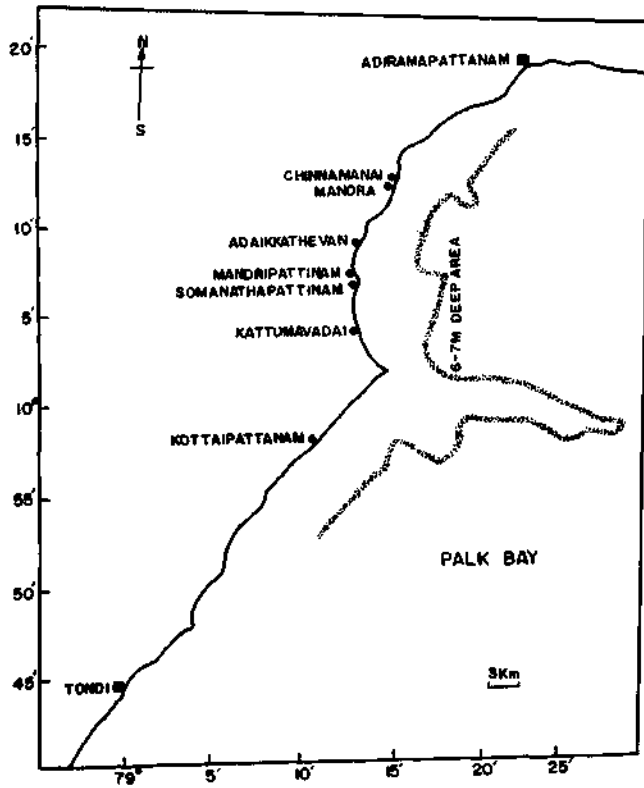


Fig. 1. Map showing the landing centres and collection area of *G. edulis*.

(marked with dots in Fig. 1). Its availability was observed for the first time during March '90 by the fishermen while operating "thalluvalai" (bottom trawl net) for prawn. After confirmation of the species as *G. edulis*, the harvest was undertaken in full swing along the entire coastline from Kottaipattanam to Chinnamanai during April to June, '90. Many country crafts from Mandapam, Rameswaram and Vedalai were brought to this area for collection of *G. edulis*. The entire quantity of seaweed was collected by thalluvalai operation. The total quantity of *G. edulis* thus harvested was 830 tonnes (dry wt). The dried *G. edulis* collected from Kottaipattanam-Chinnamanai area was sold at the rate of Rs. 2,000 per tonne (dry wt). The breakup details of placewise landings are given in

TABLE 1. *G. edulis* landings in Kottaipattanam-Chinnamanai area during April-June '90

Place	Quantity of seaweed landed (dry wt in tonnes)
Kottaipattanam	40
Kottumavadi	50
Somanathapattinam	50
Mandripattinam	540
Adaikkathevan	130
Manora	10
Chinnamanai	10
Total	830

Table 1.

In general, the opinion of the local fishermen is that *G. edulis* plants from Sri Lanka coast would have been drifted to this area by water current and it is for the first time such a large quantity of *G. edulis* is observed. In the past ten years, collection of free floating *G. edulis* was made (100 to 150 tonnes dry wt) in the Palk Bay side near Mandapam during the same period, April to June. But this year only a small quantity of 5 tonnes (dry wt) could be harvested from Mandapam since the availability of free floating seaweeds was very less.

It appears that 830 tonnes (dry wt) of *G. edulis* exploited from Kottaipattanam-Chinnamanai area during April-June '90 is quite sufficient to meet the raw material requirement for the year 1990 by the Indian seaweed industries manufacturing food grade agar.